

Claims

1. A solubilizing composition comprising a mixture of Vitamin E TPGS and linoleic acid.
- 5 2. The solubilizing composition according to claim 1 wherein said Vitamin E TPGS and said linoleic acid are present at a weight ratio from about 10,000:1 to about 1:6 Vitamin E TPGS to linoleic acid.
- 10 3. The solubilizing composition according to claim 2 wherein said Vitamin E TPGS and said linoleic acid are present at a weight ratio from about 10,000:1 to about 10:1 Vitamin E TPGS to linoleic acid.
- 15 4. The solubilizing composition according to claim 3 wherein said Vitamin E TPGS and said linoleic acid are present at a weight ratio from about 1,000:1 to about 100:1 Vitamin E TPGS to linoleic acid.
- 20 5. The solubilizing composition according to claim 2 wherein said Vitamin E TPGS and said linoleic acid are present at a weight ratio from less than 10:1 to about 1:6 Vitamin E TPGS to linoleic acid.
- 25 6. An aqueous emulsion comprising:
an aqueous phase and a lipid phase dispersed throughout said aqueous phase, said lipid phase including a blend of
 - a) a therapeutically effective concentration of a lipophile,
 - b) a concentration of Vitamin E TPGS, and
 - c) a concentration of linoleic acid,wherein said concentration of Vitamin E TPGS and said concentration of linoleic acid is sufficient for solubilizing said lipophile in said aqueous
30 phase.

7. The emulsion according to claim 6 wherein the weight of said aqueous phase is about 80 to about 99 weight percent and the weight of said lipid phase is about 1 to about 20 weight percent, wherein the sum of the weight percentages of said lipid phase and said aqueous phase equals a total of 100 weight percent.
8. The emulsion according to claim 6 wherein said Vitamin E TPGS and said linoleic acid are present at a weight ratio between about 10,000:1 to about 1:6 Vitamin E TPGS to linoleic acid.
9. The emulsion according to claim 8 wherein said Vitamin E TPGS and said linoleic acid are present at a weight ratio between about 10,000:1 to about 10:1 Vitamin E TPGS to linoleic acid.
10. The emulsion according to claim 8 wherein said Vitamin E TPGS and said linoleic acid are present at a weight ratio between less than 10:1 to about 1:6 Vitamin E TPGS to linoleic acid.
11. The emulsion according to claim 10 wherein said Vitamin E TPGS and said linoleic acid are present at a weight ratio between about 1:1 to about 1:4 Vitamin E TPGS to linoleic acid.
12. The emulsion according to claim 6 wherein said linoleic acid is present at a concentration less than a therapeutically effective concentration of linoleic acid.
13. The emulsion according to claim 6 wherein said therapeutically effective lipophile is selected from the group consisting of lipophilic

vitamins, coenzyme Q10, carotenoids, alpha-lipoic acid, essential fatty acids, and a combination thereof.

14. The emulsion according to claim 13 wherein said therapeutically effective lipophile is a mixture of vitamin E homologs selected from the group consisting of alpha-tocopherol, beta-tocopherol, gamma-tocopherol, delta-tocopherol, alpha-tocotrienol, beta-tocotrienol, gamma-tocotrienol, delta-tocotrienol, and a combination thereof.

15. The emulsion according to claim 14 wherein each 1-mL dose of said emulsion includes about 25 to about 50 mg of said mixture of vitamin E homologs, said mixture of vitamin E homologs comprising

- a) about 25 to about 50 weight percent alpha-tocopherol,
- b) about 0.1 to about 5 weight percent beta-tocopherol,
- c) about 25 to about 50 weight percent gamma-tocopherol,
- d) about 5 to about 25 weight percent delta-tocopherol,
- e) about 0.1 to about 5 weight percent alpha-tocotrienol,
- f) about 0.1 to about 5 weight percent beta-tocotrienol,
- g) about 0.1 to about 5 weight percent gamma-tocotrienol, and
- h) about 0.1 to about 5 weight percent delta-tocotrienol,

wherein the sum of the weight percentages of said vitamin E homologs equals a total of 100 weight percent.

16. A method of forming an aqueous emulsion of a therapeutically effective lipophile in water comprising:

- a) melt blending a mixture of lipids having a concentration of from about 10 to about 75 weight percent of a therapeutically effective lipophile, a concentration of from about 10 to about 75 weight percent Vitamin E TPGS, and a concentration of from about 0.01 to about 50 weight percent linoleic

acid to provide a lipid phase wherein the sum of said concentrations equals a total of 100 weight percent;

b) contacting the lipid phase with an amount of water to form about an 80 to about a 99 weight percent aqueous mixture; and

5 c) intimately mixing the mixture for a period of time to provide an emulsion that is stable at room temperature.

17. The method according to claim 16 wherein said lipophile comprises a mixture of vitamin E homologs selected from the group consisting of
10 alpha-tocopherol, beta-tocopherol, gamma-tocopherol, delta-tocopherol, alpha-tocotrienol, beta-tocotrienol, gamma-tocotrienol, delta-tocotrienol, and a combination thereof.

18. A method of treating a patient with a lipophile comprising:
15 administering to the patient an aqueous emulsion having about a 1 to about a 20 weight percent lipid phase including a blend of a therapeutically effective amount of the lipophile, and a solubilizing amount of Vitamin E TPGS and linoleic acid, wherein the lipophile is a compound other than linoleic acid.

20

19. The method of claim 18 wherein the lipophile is vitamin E.

20. The method of claim 18 wherein said administering step is conducted orally.

25

21. The method of claim 18 wherein said administering step is conducted topically.

22. An oral dosage form made from the emulsion according to claim 6.

30

23. A topical dosage form made from the emulsion according to claim 6.